CLAIMS

1. An optical film, comprising:

an optically structured layer, which is a sheet formed of a transparent polymeric material and includes a first surface on which a plurality of three-dimensional structures are formed and a second surface opposite the first surface; and

a damage prevention layer, which is formed on the second surface of the optically structured layer and is composed of a transparent polymeric material and a plurality of spherical organic or inorganic particles distributed in the transparent polymeric material,

wherein the damage prevention layer has protruding surface portions which are formed by the spherical organic or inorganic particles protruding from the transparent polymeric material.

2. The method according to claim 1, wherein the optically structured layer includes a base layer, which is formed as a flat sheet to constitute the second surface of the optically structured layer, and a structured layer, which comes into contact with the base layer and is formed of a curing resin to constitute the first surface of the optically structured layer.

3. The method according to claim 1, wherein the

three-dimensional structure of the first surface of the optically structured layer includes any one selected from the group consisting of a parallel array of linear isosceles prisms arranged side-by-side, an array of pyramidal prisms, an array of conical prisms, an array of semi-spherical prisms, and an array of non-spherical prisms.

4. The method according to claim 2, wherein the base layer is formed of any one selected from the group consisting of polyethyleneterephthalate, polycarbonate, polypropylene, polyethylene, polystyrene, and epoxy resins.

5. The method according to claim 1, wherein the spherical particles are monodispersed in the damage prevention layer and have an average diameter of 0.1 to 15 μm.

6. The method according to claim 1, wherein the spherical particles include any one selected from the group consisting of acrylics, olefins, acryl-olefin copolymers, and multilayered multicomponent particles.

7. The method according to claim 1, wherein the spherical particles include any one selected from the group consisting of silicon oxide, aluminum oxide, titanium oxide, zirconium oxide, and magnesium fluoride.

8. The method according to claim 1, wherein the spherical particles of the damage prevention layer are used in an amount of 20 wt% or less, based on the weight of the transparent polymeric material.

9. The method according to claim 1, wherein the protruding surface portions of the damage prevention layer are formed to have a height corresponding to 50% or less of the diameter of the spherical particles.

10. The method according to claim 1, wherein the spherical particles are formed of a material having a refractive index of 1.4 to 1.5.

11. The method according to claim 1, wherein the damage prevention layer, with the exception of the protruding surface portions of the damage prevention layer, are formed to have a thickness corresponding to the range of from 50% to less than 100% of the diameter of the particles.

12. The method according to claim 1, wherein the spherical particles of the damage prevention layer are distributed in a monolayer structure.

13. The method according to claim 1, wherein the

damage prevention layer further comprises an antistatic agent.

14. The method according to claim 13, wherein the antistatic agent includes any one selected from the group consisting of quaternary amine-based materials, anionic-based materials, cationic-based materials, nonionic-based materials, and fluoride-based materials.